PowerChokes®

Standard Choke SCB All-Purpose Severe Service

The Model SCB is a forged body, all-purpose severe service choke, available as an adjustable or a positive model.

Features

Adjustable Choke
• Worm gear drive actuator – eliminates backlash and provides precise control; self-locking to prevent movement even if hydraulic pressure is lost
• Quick change actuator – no need to disconnect hoses for removal. Trim can be changed in 15 minutes or less without removing the choke from the line or breaking into the manifold
• Accommodates 1½", 2" or 3" trim size
• Manual override capability - provided on all worm gear-operated hydraulic chokes in case of power loss
• Other types of actuator available – in addition to the exclusive modified worm gear actuator, our chokes are available with hydraulic piston, electric or manual actuators
• Reversible gate and seat assembly – provides a minimum of two uses per piece, saving parts, reducing operating costs and maximising efficiency. Can be reversed in the field
• Solid tungsten carbide gate and seat – proven design provides maximum erosion resistance. Gate and seat are precision-ground to provide drop tight shutoff

Standard Positive Choke (except Model SCC)
• Quick change bean – bonnet easily removable. Service tools available to remove bean and bean carrier quickly for inspection or replacement
• Numerous bean sizes – accepts 1” (64/64ths) maximum orifice H2-style or OCT-style bean, or a 3” solid tungsten carbide bean seat (192/64ths)

All Chokes
• Pressure balanced trim – reduces operating forces, whether the choke is operated manually or automatically. Large balance ports provide protection against clogging
• Downstream wear sleeve and retainer ring – extended-length solid tungsten carbide seat provides wear protection downstream and a smooth transition for fluid into the downstream piping
• Large buffer cavity – slows velocity and distributes impact of solids, maximising trim life

Actuator Manipulator Option
• Allows one-man, in-line servicing of chokes
• No lifting device required
• 15-minute service time

Control Consoles
• Offer operation for one, two or more chokes and / or hydraulic control valves
• Speed adjusts to allow fast or slow choke movement
• One or two hydraulic pumps plus manual backup hydraulic pump
• Bourdon tube hydraulic pressure gauges or digital pressures gauges available
• Digital position indicator gauge standard
• Accumulators available for power backup or to smooth choke operation

Both adjustable and positive Chokes supplied with:
• Bleeder port to bleed pressure from choke body prior to choke bonnet removal for inspection or maintenance
• Studded inlet X flanged outlet standard. Flanged inlets available
• 3½” inlet X 4½” outlet standard for use in API 5M, 10M or 15M service
• Other inlet and outlet sizes available

exprogroup.com/powerchokes
Standard Choke SCB All-Purpose Severe Service

Technical specifications

Standard configuration
- Reversible, balanced, erosion-resistant trim

Pressure ratings available API 5,000; 10,000; 15,000 psi
- Inlet size ranges $1 \frac{1}{16}''$ to $7 \frac{1}{8}''$
- Outlet size ranges $4 \frac{1}{16}''$ to $7 \frac{1}{8}''$
- Trim sizes available $1 \frac{1}{8}''$, $2''$ or $3''$
- Testing API 6A, API 16C
- Body material API 75K, impact tested I/A/NACE MR01-75
- Throttling trim material Tungsten carbide
- Seat material Tungsten carbide
- Seat leakage Drop tight

API temperature ranges
- Standard -20°F to +250°F (-29°C to +121°C)
- Optional -75°F to +350°F (-60°C to +177°C)

API 6A PSL 1 - 3, 3G
API 6A PR 1 - 2

General design specifications
- Maximum open for controllability 85%
- Minimum open for controllability 2%
- Maximum exit velocity 1.0 Mach
- Max. downstream velocity (Gas) 0.3 Mach
- Max. downstream velocity (Liquid) 100 - 200 ft/sec
- Hydraulic operating pressure 1,800 psig
- Seat leakage Drop tight (Exceeds ANSI class V)
- Throttling pressure drop Full-rated pressure